

Mobile Phone Use

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Fact Sheet

Office of Epidemiology
Division of Radiation Protection



Mobile phones emit low levels of radio frequency (RF) energy. It is well known that high levels of RF can produce biological damage through heating effects. However, it is not known whether, to what extent, or through what mechanism, lower levels of RF, such as those emitted by mobile phones, might cause adverse health effects. The available science does not allow us to conclude that mobile phones are absolutely safe, or that they are unsafe.

The US government sponsors and supports some research efforts on mobile phone health issues and broader research efforts are under way internationally. Given the long-term nature of the research, definitive answers are years away. In the meantime, the WDOH offers the following suggestions.

- Using mobile phones: Present scientific information does not indicate the need for any special precautions for use of mobile phones. However, in the absence of a definitive conclusion on mobile phone safety, people concerned about potential risks can take simple steps to minimize risks. They can choose to limit their own or their children's RF exposure by limiting the number and length of calls, and by using "hands-free" devices to keep mobile phone antennas away from the head and body.
- EMF interference: Radio signals emitted by mobile phones may interfere with certain electronic equipment. In hospitals, airplanes, and other restricted areas, observe the warning signs and switch off your mobile phone when required.
- Driving safety: Anything that distracts a driver increases the risk of an accident. Motorists are

strongly discouraged from using mobile phones while driving.

- SAR values: The United States Federal Communications Commission (FCC) has set limits on energy emitted by handset antennas. That number, now given on new models, is the SAR (for specific absorption rate). The SAR cannot exceed 1.6 watts per kilogram of tissue. Information on the SAR for a specific cell phone model can be obtained from the FCC at their web address, www.fcc.gov/oet/fccid.
- Shielding devices: Recently, devices have been marketed that claim to "shield" or otherwise reduce RF absorption in the body of the user. Some of these devices incorporate shielded phone cases, while others involve nothing more than some metallic accessory attached to the phone. Studies have shown that these devices generally do not work as advertised. Consumers are encouraged to thoroughly investigate any such device before purchasing it.

Further reading:

The following websites contain additional information about exposure to radio frequency, and mobile phone safety. Referral to these sites does not constitute an endorsement by the Department of Health of any specific policy or statement contained in the material.

Mobile Phone Use – Factsheet

U.S. Food and Drug Administration: Consumer
Update on Mobile Phones

<http://www.fda.gov/cellphones/>

Federal Communications Commission

<http://www.fcc.gov/oet/rfsafety>

International Agency for Research on Cancer

<http://www.iarc.fr>

Independent Expert Group on Mobile Phones,
“The Stewart Report”

<http://www.iegmp.org.uk>

United Kingdom Department of Health

<http://www.doh.gov.uk/mobile.htm>

Cellular Telecommunications Industry Association
(CTIA)

<http://www.wow-com.com/>

United States General Accounting Office,
Research and Regulatory Efforts on Mobile Phone
Health Issues, Report #GAO-01-545

<http://www.gao.gov>

Medical College of Wisconsin

<http://www.mcw.edu/gcrc/cop/cell-phone-health-FAQ/toc.html>

Need More Information?

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